

Regional HIV/AIDS Epidemiologic Profile of Boston HSR, Massachusetts: 2014

Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data

Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Diseases, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2014, this resulted in the removal of 4,135 HIV/AIDS cases, of which 973 have died and 3,162 were living. These persons living with HIV/AIDS may still continue to reside and receive care in the Commonwealth. The total number of persons living with HIV/AIDS, irrespective of location at diagnosis, is the basis for MDPH service planning. This change is partially a result of increased activities required by the Centers for Disease Control and Prevention (CDC) for de-duplication among states in an effort to identify cases that are counted multiple times in the National HIV/AIDS Surveillance System. The cases are assigned to the state that reports the earliest date of AIDS diagnosis if available. If the case has not progressed to AIDS, the case is assigned to the state with the earliest HIV diagnosis date. Please note that previous HIV/AIDS fact sheets, data reports and presentations included cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the MDPH HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual reported risk category for men; those cases have been reassigned to the no identified risk (NIR) category. The presumed heterosexual reported risk category was used with the intention of identifying HIV reported risk for women when sex with men is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. Twenty-nine percent of men living with HIV/AIDS and 40% of recent female HIV diagnoses are reported in the presumed heterosexual reported risk category. The application of the presumed heterosexual reported risk category to men is overly inclusive in that female to male HIV transmission is biologically less probable, and there are alternate reported risks that are possible for men, including sex with other men (MSM) or IDU. The CDC reports men diagnosed with HIV/AIDS who report sex with women as their only risk factor, without corresponding partner risk or HIV status information, in the NIR category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for men in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual reported risk categories for women.

Table 1. Total number of people reported with HIV infection or AIDS¹ by mortality status on December 31, 2013: Boston HSR, Massachusetts²

	N	%
People Living with HIV/AIDS	6,079	58%
People Reported with HIV or AIDS who are Deceased	4,473	42%
Total Number of People Reported with HIV Infection or AIDS	10,552	100%

¹ Does not include individuals diagnosed with HIV infection (non-AIDS) who died prior to January 1, 1999 or who were not in care on January 1, 1999

² Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/14

Table 2. Average annual rate of HIV infection diagnosis from 2010 to 2012 and HIV/AIDS prevalence rate on 12/31/13¹: Boston HSR, Massachusetts²

Average annual HIV diagnosis rate from 2010–2012	Average rate per 100,000	Average annual number of HIV diagnoses
Boston HSR, MA	26.7	208.3
Massachusetts Total	10.5	688.3

HIV/AIDS prevalence rate on 12/31/13	Rate per 100,000	Number of people living with HIV/AIDS
Boston HSR, MA	778.6	6,079
Massachusetts Total	292.7	19,165

¹ The denominators for rate calculations are from the MDPH Massachusetts Race Allocated Census 2010 Estimates (MRACE 2010), Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research, and Evaluation.

² Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/14

Table 3. People living with HIV/AIDS¹, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year²: 2003–2012, Boston HSR, Massachusetts³

Year	HIV/AIDS Prevalence	Deaths among those with HIV/AIDS	Diagnosis of HIV Infection
2003	4,541	108	307
2004	4,717	90	266
2005	4,918	88	289
2006	5,075	89	246
2007	5,215	78	218
2008	5,344	78	207
2009	5,471	72	199
2010	5,612	71	212
2011	5,776	55	219
2012	5,913	57	194

¹ Number of people living with HIV/AIDS on 12/31 of each year

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

⁴ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size for the assurance of confidentiality. Additional values may be suppressed to prevent back calculation.

Data source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/14

Table 4. People diagnosed with HIV infection from 2010–2012¹ and people living with HIV/AIDS on December 31, 2013 by gender, place of birth, race/ethnicity, exposure mode, age at HIV infection diagnosis and current age: Boston HSR, Massachusetts²

HIV Infection Diagnoses			PLWH/A	
Gender:	N	%	N	%
Male	485	78%	4,647	76%
Female	140	22%	1,432	24%
Place of Birth:	N	%	N	%
US	378	60%	4,059	67%
Puerto Rico/US Dependency ³	28	4%	367	6%
Non-US	219	35%	1,653	27%
Race/Ethnicity:	N	%	N	%
White (non-Hispanic)	202	32%	2,406	40%
Black (non-Hispanic)	234	37%	2,324	38%
Hispanic/Latino	159	25%	1,220	20%
Asian/Pacific Islander	18	3%	91	1%
Exposure Mode:	N	%	N	%
Male-to-male sex (MSM)	310	50%	2,921	48%
Injection Drug Use (IDU)	39	6%	772	13%
MSM/IDU	20	3%	212	3%
Heterosexual Sex	60	10%	748	12%
Other	6	1%	107	2%
Total Undetermined	190	30%	1,319	22%
• Presumed Heterosexual Sex ⁴	68	11%	492	8%
• Undetermined ⁵	122	20%	827	14%
Age:	N	%	N	%
	At Diagnosis		On December 31, 2013	
Under 13	6	1%	9	<1%
13 to 19	20	3%	34	1%
20 to 24	62	10%	73	1%
25 to 29	80	13%	199	3%
30 to 34	79	13%	289	5%
35 to 39	83	13%	407	7%
40 to 44	84	13%	620	10%
45 to 49	87	14%	1,060	17%
50 to 54	56	9%	1,233	20%
55 to 59	40	6%	1,042	17%
60+	28	4%	1,113	18%
Total⁶	625	100%	6,079	100%

¹ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

² Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

³ Ninety-eight percent of people diagnosed with HIV infection from 2010–2012 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

⁴ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁵ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁶ Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

Table 5. People living with HIV/AIDS on December 31, 2013 by gender and race/ethnicity: Boston HSR, Massachusetts¹

Race/Ethnicity:	Male		Female	
	N	%	N	%
White (non-Hispanic)	2,225	48%	181	13%
Black (non-Hispanic)	1,390	30%	934	65%
Hispanic/Latino	929	20%	291	20%
Asian/Pacific Islander	74	2%	17	1%
Total²	4,647	100%	1,432	100%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

³ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

Table 6. People living with HIV/AIDS on December 31, 2013 by gender and exposure mode: Boston HSR, Massachusetts¹

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-male sex (MSM)	2,921	63%	N/A	N/A
Injection drug use (IDU)	500	11%	272	19%
MSM/IDU	212	5%	N/A	N/A
Heterosexual sex	234	5%	514	36%
Other	57	1%	50	3%
Total Undetermined	723	16%	596	42%
• Presumed heterosexual sex ²	N/A	N/A	492	34%
• Undetermined ³	723	16%	104	7%
Total	4,647	100%	1,432	100%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Includes female sex with male of unknown HIV status or risk. This category is limited to females.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

N/A=Not Applicable

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

Table 7. People diagnosed with HIV infection by gender and year of diagnosis: Boston HSR, Massachusetts¹, 2003–2012²

	Male		Female		Total
	N	%	N	%	
2003	219	71%	88	29%	307
2004	203	76%	63	24%	266
2005	225	78%	64	22%	289
2006	194	79%	52	21%	246
2007	176	81%	42	19%	218
2008	171	83%	36	17%	207
2009	158	79%	41	21%	199
2010	152	72%	60	28%	212
2011	167	76%	52	24%	219
2012	166	86%	28	14%	194

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Boston HSR, Massachusetts¹, 2003–2012²

	White Non-Hispanic		Black Non-Hispanic		Hispanic/Latino		Total ³
	N	%	N	%	N	%	N
2003	104	34%	131	43%	68	22%	307
2004	91	34%	117	44%	54	20%	266
2005	104	36%	110	38%	72	25%	289
2006	93	38%	97	39%	50	20%	246
2007	93	43%	78	36%	39	18%	218
2008	86	42%	80	39%	36	17%	207
2009	70	35%	84	42%	44	22%	199
2010	76	36%	78	37%	50	24%	212
2011	59	27%	101	46%	47	21%	219
2012	67	35%	55	28%	62	32%	194

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Totals include Asian/Pacific Islander, American Indian/Alaskan Native individuals, and those of other or undetermined race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

Table 9. People diagnosed with HIV infection by place of birth and year of diagnosis: Boston HSR, Massachusetts¹, 2003–2012²

	US		Puerto Rico/ US Dependency ³		Non-US		Total
	N	%	N	%	N	%	N
2003	191	62%	21	7%	95	31%	307
2004	171	64%	11	4%	84	32%	266
2005	187	65%	19	7%	83	29%	289
2006	152	62%	10	4%	84	34%	246
2007	143	66%	9	4%	66	30%	218
2008	137	66%	11	5%	59	29%	207
2009	130	65%	14	7%	55	28%	199
2010	131	62%	8	4%	73	34%	212
2011	137	63%	9	4%	73	33%	219
2012	110	57%	11	6%	73	38%	194

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Ninety-eight percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 1% were born in an unknown dependency.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

Table 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: Boston HSR, Massachusetts¹, 2003–2012²

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX ³		Undeter- mined ⁴		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
2003	121	39%	36	12%	-- ⁵	-- ⁵	42	14%	-- ⁵	-- ⁵	36	12%	58	19%	307
2004	119	45%	27	10%	-- ⁵	-- ⁵	29	11%	-- ⁵	-- ⁵	34	13%	47	18%	266
2005	152	53%	21	7%	-- ⁵	-- ⁵	30	10%	-- ⁵	-- ⁵	27	9%	48	17%	289
2006	121	49%	17	7%	-- ⁵	-- ⁵	30	12%	-- ⁵	-- ⁵	25	10%	40	16%	246
2007	111	51%	23	11%	-- ⁵	-- ⁵	15	7%	-- ⁵	-- ⁵	15	7%	43	20%	218
2008	103	50%	11	5%	-- ⁵	-- ⁵	22	11%	-- ⁵	-- ⁵	15	7%	43	21%	207
2009	97	49%	11	6%	-- ⁵	-- ⁵	23	12%	-- ⁵	-- ⁵	20	10%	43	22%	199
2010	104	49%	15	7%	-- ⁵	-- ⁵	21	10%	-- ⁵	-- ⁵	31	15%	35	17%	212
2011	102	47%	13	6%	-- ⁵	-- ⁵	26	12%	-- ⁵	-- ⁵	24	11%	44	20%	219
2012	104	54%	11	6%	-- ⁵	-- ⁵	13	7%	-- ⁵	-- ⁵	13	7%	43	22%	194

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁴ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁵ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

Table 11. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: Boston HSR, Massachusetts¹, 2003–2012²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2003	100	307	33%
2004	83	266	31%
2005	91	289	31%
2006	84	246	34%
2007	69	218	32%
2008	55	207	27%
2009	53	199	27%
2010	56	212	26%
2011	65	219	30%
2012	51	194	26%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/14

Table 12. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by gender, race/ethnicity, and place of birth: Boston HSR, Massachusetts,¹ 2010–2012²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Gender:	N	N	%
Male	132	485	27%
Female	40	140	29%
Race/Ethnicity:	N	N	%
White (non-Hispanic)	43	202	21%
Black (non-Hispanic)	77	234	33%
Hispanic/Latino	46	159	29%
Asian/Pacific Islander	-- ⁵	-- ⁵	-- ⁵
Other/Undetermined ³	-- ⁵	-- ⁵	-- ⁵
Place of Birth:	N	N	%
US	85	378	22%
Puerto Rico/US Dependencies ⁴	8	28	29%
Non-US	79	219	36%
Total	172	625	28%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ Includes American Indian/Alaska Native, other and unspecified race/ethnicity.

⁴ Ninety-eight percent of people diagnosed with HIV infection from 2010–2012 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

⁵ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14